

DETAILED ACTION

Remarks

1. In response to Applicant's Amendment filed on November 13, 2007, claims 1, and 3-61 are pending in the application, of which claims 54-59 are withdrawn from consideration.
2. Applicant's amendment has overcome the previously cited claim objections.

Election/Restrictions

3. This application contains claims 54-59 drawn to an invention nonelected without traverse on 12/22/2004. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Objections

4. Claims 14-24 are objected to because of the following informalities:

Claims 14-24 appear to be exact duplicates of claims 4-14 in content and dependency and as such are unnecessary. Appropriate correction is required.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.
6. Claim 61 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

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Claim 61 lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material *per se*.

Descriptive material can be characterized as either “functional descriptive material” or “nonfunctional descriptive material.” Both types of “descriptive material” are nonstatutory when claimed as descriptive material *per se*, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994)

Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal, does not make it statutory. See *Diehr*, 450 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in *Benson* were unpatentable as abstract ideas because “[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer.”).

Claim 61’s preamble is directed to computer system however no where in the body of the claim are there any computer hardware elements being claimed. The “devices” claimed are nothing more than software modules and components. A computer system must be represented by the its hardware such as processor, memory, display etc.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 4 and 45 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention. Evidence that claims 4 and 45 fail(s) to correspond in scope with that which applicant(s) regard as the invention can be found in newly amended claim 1 of which both directly depend on. In claim 1, applicant has stated that two filtering steps are taken place, and this statement indicates that the invention is different from what is defined in the claim(s) 4- 45 because those claims are not clear to which filtering step they are referring as well as appear to introduce a third filtering step which has no

support in the specification. Also, appears that the second filtering step intended in claim 1 is done relative to user's feedback thus will not be applied as basis for claims 4 and 45. Appropriate clarification and/ or corrections to the claims is respectfully requested.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1, 4, 14, 10, 20, 26-32, 40-41, 46-48, and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joachim Hammer, Jan Fiedler. Using Mobile Crawlers to Search the Web Efficiently (Pub. 2000) - (from hereon in Hammer et al.) in view of Gable (U.S. Patent No. 6,029,165).

As to claims 1, 40, and 41, Hammer et al. discloses a computer-implemented method of implementing a search engine to compile and access subject-specific information from a computer network, the method comprising the steps of:

traversing links between sites on the computer network, by said search engine (See Hammer et al. page 1, introduction, both columns);

filtering, by said search engine, contents of each site visited to determine relevancy of content to said particular subject (See Hammer et al. page 6, column 1, paragraph 3); and

presenting for an indexing operation, at said search engine, information on each site deemed relevant to said particular subject by said filtering (See Hammer et al. page 3, column 1, paragraph 2, and see page 3, column 2, bottom paragraph).

Hammer et al. teaches the claimed invention but is not specifically states filtering the contents of a site at least a second time for relevancy to said particular subject. Although, within any software routine, it is inherent and well known that it can be repeated and therefore filtering can occur a second time.

Gable teaches filtering the contents of a site at least a second time for relevancy to said particular subject (See column 13, lines 10-21, interpreted in light of applicant's specification page 11, and dependent claim 3, to be manual feedback inherent to be run through a filter a second time).

Both Hammer et al. and Gable are from analogous art dealing with filtering subject specific topics in a search environment.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Hammer et al. by the teachings of Gable to include filtering the contents of a site at least a second time for relevancy to said particular subject because it is well-known in the software art and more accurate to provide a second filter or a second filtering step as it can be provided simply by human interaction through an interface.

As to claims 4, 14, 47-48, and 52, Hammer et al. as modified discloses wherein at least one of said filtering steps comprises the step of:

passing the contents of the site through a lexicon-based filter, the filter comparing contents of the site with terminology found in the lexicon (See Hammer et al. page 6, column 2, paragraph 1, wherein keywords associated with vocabulary are taught, and see Gable Figure 6, 80, 96).

As to claims 10, and 20, Hammer et al. as modified discloses wherein the step of passing the contents of the site through a lexicon-based filter comprises the step of:

comparing the contents of a web page corresponding to the site with the lexicon (See corresponding rejection for claim 4 above).

As to claim 26, Hammer et al. as modified discloses replacing the lexicon with a lexicon corresponding to a different subject in order to create a different subject-specific database (See Gable column 6, lines 43-54, wherein it is inherent that user can create any lexicon in a dictionary according to their likings).

As to claim 27, Hammer et al. as modified discloses further comprising the step of:
compiling a database of searchable relevant information (See Hammer et al. page 15, column 1, paragraph 1, and see Gable column 6, lines 44-60, wherein it is unclear if this database is any different from the traditional “search engine” database).

As to claim 28, Hammer et al. as modified discloses further comprising the steps of:

permitting a user to enter a query (See Hammer et al. page 15, column 1, paragraph 1. wherein “permitting” indicates optional and intended use interpretation not in fact the functionality of performing a query);

searching the database for information according to the query (See Hammer et al. page 15, column 1, paragraph 1); and

computing a site ranking for each site associated with information found in said searching step, the site ranking being computed based on said word scores (See Gable column 8, lines 9-25, wherein “word score” reads on “frequency of terms”).

As to claims 29, 31, and 32, Hammer et al. as modified discloses further comprising the step of:

displaying information found in said step of searching in a hierarchical format according to site ranking (See Gable Figure 5, 112, and see Gable column 10, lines 49-60, wherein it is inherent that ranking presents results hierarchically, and wherein ranking inherent provides order).

As to claim 30, Hammer et al. as modified discloses further comprising the step of:

determining a site ranking for each site associated with information found in said searching step, where the determining is according to how interesting at least one of authors and users of the computer network have found the site associated with the information (See Gable column 10, lines 24-52, wherein it is inherent that the author can also be a user of the system, wherein it is inherent that ranking can be done based on author feedback).

As to claim 46, Hammer et al. discloses a system to implement a search engine to compile and permit (wherein the term "permit" is interpreted to be intended use that is optional and may occur, suggested to be replaced with "configured to access") accessing of subject-specific information from a computer network, the system comprising:

a host computer to execute software stored upon a computer-readable storage medium to implement said search engine, the software comprising:

a smart crawler (See Hammer et al. page 3, column 1, paragraph 2) of said search engine to traverse the computer network (See corresponding rejection for claim 1 above, wherein the term "smart" is relative and may change with time);

a first filter of said search engine (See Hammer et al. page 6, column 1, paragraph 3), to filter out sites that are irrelevant to said particular subject, and permitting only sites relevant to said particular subject to pass (See corresponding rejection for claim 1 above); and

an indexer of said search engine to index the relevant sites (See corresponding rejection for claim 1 above, further more it is inherent that search engine holds an index); and

memory, connected to the host computer, to store indexed subject-specific information (See corresponding rejection for claim 1 above).

The motivation to provide a second filter is similar to that of claim 1 above.

11. Claims 3, 25, 45, 50, and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joachim Hammer, Jan Fiedler. Using Mobile Crawlers to Search the Web Efficiently (Pub.

2000) - (from hereon in Hammer et al.) in view of Gable (U.S. Patent No. 6,029,165) as applied above, and further in view of Conklin et al. (U.S. Patent No. 6,363,378 B1).

As to claims 3, 25, 45, 50, and 53, Hammer et al. as modified teaches the claimed invention but is not specific on how the feedback is acquired and thus does not teach: wherein at least one of said filtering steps comprises the steps of:

presenting the contents to a human editor via a human-computer interface;

permitting approving, by the human editor, when the contents are deemed relevant to said particular subject; and

permitting disapproving, by the human editor, when the contents are not deemed relevant to said particular subject;

wherein said presenting the contents, approving, and disapproving are preformed prior to said presenting for an indexing operation step.

Conklin et al. teaches wherein at least one of said filtering steps comprises the steps of:

presenting the contents to a human editor via a human-computer interface (See Conklin et al. column 5, limes 16-36);

permitting approving, by the human editor, when the contents are deemed relevant to said particular subject (See Conklin et al. column 5, limes 16-36, wherein selection and de-selection are inherent capabilities of user interfaces); and

permitting disapproving, by the human editor, when the contents are not deemed relevant to said particular subject (See Conklin et al. column 5, limes 16-36, wherein selection and de-selection are inherent capabilities of user interfaces);

wherein said presenting the contents, approving, and disapproving are preformed prior to said presenting for an indexing operation step (wherein it is inherent in query feedback and refinement that user feedback is taken into consideration for the second filtering step).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the invention of Hammer et al. as modified by the teachings of Conklin et al. to include user interface based feedback to query results for efficient and more accurate search results.

12. Claims 5-9, 11-13, 15-19, and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joachim Hammer, Jan Fiedler. Using Mobile Crawlers to Search the Web Efficiently (Pub. 2000) - (from hereon in Hammer et al.) in view of Gable (U.S. Patent No. 6,029,165) as applied above, and further in view of Burrows (U.S. Patent No. 6,021,409).

As to claims 5, and 15, Hammer et al. as modified does not teach wherein the step of passing the contents of the site through a lexicon-based filter comprises the steps of:

breaking up a web page corresponding to the site contents into component parts; and
comparing the contents of each component part with the lexicon.

Burrows teaches breaking up a web page corresponding to the site contents into component parts (See Burrows column 6, lines 56-67); and

comparing the contents of each component part with the lexicon (See Burrows column 2, lines 50-60).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the invention of Hammer et al. as modified by the teachings of Burrows to include parsing web pages to components and assigning weight for ranking and scoring because it is well known method in the search engine art to separate useful information into format useful for storage, indexing, and retrieval.

As to claims 6, 11, 16, and 21 Hammer et al. as modified discloses wherein the step of passing the contents of the site through a lexicon-based filter further comprises the steps of:

assigning a weight to each component part based on a result of the step of comparing (See Burrows column 26, lines 26-34, and see Hammer et al. page 6, column 2, paragraphs 1-2); and

deeming the component part to be relevant when it achieves a threshold weight (See Burrows column 27, lines 25-36).

As to claims 7, 12, 17, 22, and 39, Hammer et al. as modified discloses wherein the step of assigning a weight comprises the steps of:

assigning a weight to each word, term, or expression in the component part that matches a word, term, or expression in the lexicon, according to a weight associated with the word, term, or expression (See Burrows column 27, lines 1-17, and see Burrows column 2, lines 50-60, and see Hammer et al. page 6, column 2, paragraph 1, and see Gable column 8, lines 3-29); and

accumulating a sum of assigned weights, the sum forming the weight assigned to the component part (See Burrows column 26, lines 34-49).

As to claims 8, 13, 18, and 23, Hammer et al. as modified discloses wherein the step of passing the contents of the site through a lexicon-based filter further comprises the steps of:

saving component parts deemed to be relevant to said particular subject and passing them to the presenting step (See Gable column 10, lines 27-48, wherein it is inherent that relevant terms or components are saved while irrelevant ones are discarded); and

discarding component parts deemed not to be relevant to said particular subject (See Hammer et al. page 6, column 2, paragraph 1, and see Burrows column , lines, wherein it is inherent that non-relevant content is discarded).

As to claims 9, and 19, Hammer et al. as modified discloses wherein the step of passing the contents of the site through a lexicon-based filter further comprises the steps of:

when at least one component part is deemed to be relevant to said particular subject, passing the web page to the presenting step (See Gable column 13, lines 10-21); and

when no component part is deemed to be relevant to said particular subject, discarding the web page (See Hammer et al. page 6, column 2, paragraph 1, wherein it is inherent that non-relevant content is discarded).

13. Claims 33-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joachim Hammer, Jan Fiedler. Using Mobile Crawlers to Search the Web Efficiently (Pub. 2000) - (from

hereon in Hammer et al.) in view of Gable (U.S. Patent No. 6,029,165) as applied above, and further in view of Filippo Menczer, Gautam Pant, Padmini Srinivasan, Miguel E. Ruiz.

Evaluating Topic-Driven Web Crawlers (2001) - (from hereon in Menczer et al.)

As to claim 33, Hammer et al. as modified still does not teach wherein the step of compiling a database comprises the step of:

for each relevant site to be stored in the database, assigning a word score to each word appearing on that site .

Menczer et al. teaches for each relevant site to be stored in the database, assigning a word score to each word appearing on that site (See Menczer et al. page 246, column 1, paragraph 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the invention of Hammer et al. as modified by the teachings of Menczer et al. to include for each relevant site to be stored in the database, assigning a word score to each word appearing on that site because ranking and scoring content is a well known method in organizing and providing relevant query results.

As to claims 34, and 36, Hammer et al. as modified discloses wherein the step of assigning word scores comprises the steps of:

determining all sites found in the database that contain links to the site (See Menczer et al. page 242, column 2, paragraph 2 1-3, wherein "links to the site" is ready to be "edges and link authority");

for each word on the site, assigning a word score for that word based at least in part on its presence on each site containing a link to the site (See Menczer et al. page 243, column 2, paragraph 1, wherein it is inherent that score of zero (no score) is given to sites that have no matching words).

As to claims 35, and 37, Hammer et al. as modified discloses wherein the step of assigning a word score for that word further comprises the step of increasing the word score for each site containing a link to the site when the word appears in close proximity to the link (See Menczer et al. page 244, column 1, paragraph 1, and page 246, column 1, paragraph 2, wherein it is read to mean "link appearance" calculations).

As to claim 38, Hammer et al. as modified discloses further comprising the steps of:
permitting a user to enter a query (See Hammer et al. page 15, column 1, paragraph 1, wherein "permitting" indicates optional and intended use interpretation not in fact the functionality of performing a query);

searching the database for information according to the query (See Hammer et al. page 15, column 1, paragraph 1); and

computing a site ranking for each site associated with information found in said searching step, the site ranking being computed based on said word scores (See Gable column 8, lines 9-25, wherein "word score" reads on "frequency of terms").

As to claim 39, Hammer et al. as modified discloses wherein the step of assigning a weight comprises the steps of:

assigning a weight to each word, term, or expression in the component part that matches a word, term, or expression in the lexicon, according to a weight associated with the word, term, or expression (See Menczer et al. page 243, column 2, paragraph 1, and see Gable column 8, lines 12-24, wherein it is inherent once each term or component is assigned a weight the final ranking is based on combined weight); and

accumulating a sum of assigned weights, the sum forming the weight assigned to the component part (See Menczer et al. page 243, column 2, paragraph 1, wherein it is inherent once each term or component is assigned a weight the final ranking is based on combined weight).

14. Claims 42-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joachim Hammer, Jan Fiedler. Using Mobile Crawlers to Search the Web Efficiently (Pub. 2000) - (from hereon in Hammer et al.) in view of Gable (U.S. Patent No. 6,029,165) and further in view of Conklin et al. (U.S. Patent No. 6,363,378 B1).

As to claim 42, Hammer et al. as modified does not teach further comprising the step of: monitoring a depth for each link, the depth being a reflection of relevance.

Conklin et al. teaches monitoring a depth for each link, the depth being a reflection of relevance (See Conklin et al. column 9, lines 20-60, and see Figure 5, 420).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the invention of Hammer et al. as modified by the

teachings of Conklin et al. to include monitoring a depth for each link, the depth being a reflection of relevance because it is well known method in the search engine art as to keep efficient track of related websites.

As to claim 43, Hammer et al. as modified discloses wherein the step of monitoring comprises the steps of:

for a given site being visited, setting depths of any links leading from that site to other sites to a depth of a link traversed to reach the given site (See Conklin et al. column 13, lines 1-27, and see Hammer et al. page 2, column 2, paragraph 4);

where the given site is determined to be relevant to said particular subject in the filtering step, setting the depths of the links leading from that site to zero (See Conklin et al. column 9, lines 20-36, wherein it is inherent that if site meets threshold than it is relevant); and

where the given site is determined not to be relevant to said particular subject in the filtering step, incrementing the depths of the links leading from that site (See Conklin et al. column 9, lines 20-36, and see Hammer et al. page 6, column 1, paragraph 31, wherein it is inherent that thresholds are modifiable according to the results and processes are to be repeated accordingly).

As to claim 44, Hammer et al. as modified discloses:

comparing the incremented depths to a predetermined maximum depth value (See Conklin et al. column 9, lines 20-60, and see Conklin et al. Figure 5, 420);

when the incremented depths exceed the predetermined maximum depth value, discarding the links leading from the given site (See Conklin et al. column 9, lines 20-60, and see Conklin et al. Figure 5, 420, wherein it is inherent that anything beyond a threshold is discarded as being irrelevant, while links below threshold are still relevant); and

when the incremented depths do not exceed the predetermined maximum depth value, traversing one of the links leading from the given site (See Conklin et al. column 9, lines 20-60, and see Conklin et al. Figure 5, 420, wherein it is inherent that if max value is not reached the links will still be deemed relevant and thus traversed again).

15. Claims 60 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Conklin et al. (U.S. Patent No. 6,363,378 B1) in view of Joachim Hammer, Jan Fiedler. Using Mobile Crawlers to Search the Web Efficiently (Pub. 2000) - (from hereon in Hammer et al.).

As to claims 60, and 61, Conklin et al. discloses a computer-implemented search engine to compile and access subject-specific information, associated with a particular subject, from a computer network, comprising:

device for presenting, for an indexing operation, information on each site deemed relevant to said particular subject by said extracting (filtering) (See Conklin et al. column2, line 20, and see column 4, lines 8-32, wherein “for presenting” is interpreted as intended use recitation in accordance with MPEP 2114.1 and MPEP 2106.1 IIC. and it suggested to be replaced with “presenting” or “to present”, wherein extracting not filtering is taught, filtering is

introduced in the secondary reference, wherein “indexing” is an inherent feature of a search engine and databases); and

monitoring device for monitoring a depth for each link, the depth being a reflection of relevance to said particular subject (See corresponding rejection for claims 42-44 above), wherein said monitoring device performing the steps of:

for a given site being visited, setting depths of any links leading from that site to other sites to a depth of a link traversed to reach said given site (See corresponding rejection for claims 42-44 above);

when the given site is determined to be relevant to said particular subject in the extracting (filtering) step (wherein extracting not filtering is taught, filtering is introduced in the secondary reference), setting the depths of the links leading from said site to zero (See corresponding rejection for claims 42-44 above);

when the given site is determined not to be relevant to said particular subject in the extracting (filtering) step, incrementing the depths of the links leading from said site (See corresponding rejection for claims 42-44 above);

comparing the incremented depths to a predetermined maximum depth value (See corresponding rejection for claims 42-44 above);

when the incremented depths exceed the predetermined maximum depth value, discarding the links leading from the given site (See corresponding rejection for claims 42-44 above); and

when the incremented depths do not exceed the predetermined maximum depth value, traversing one of the links leading from the given site (See corresponding rejection for claims 42-44 above).

Conklin et al. disclosed the claimed invention but is not explicit in teaching device for traversing links between sites on the computer network by said search engine. And although Conklin teaches extracting he does not teach the claimed recitations of:

filtering device to filter contents of each site visited to determine relevancy of content to said particular subject (wherein it is inherent that selective content is kept and presented).

Hammer et al. teaches device for traversing links between sites on the computer network by said search engine (See page 1, introduction, both columns, wherein “for traversing” is interpreted as intended use recitation in accordance with MPEP 2114.1 and MPEP 2106.1 IIC. and it suggested to be replaced with “traversing” or “to traverse”); and

filtering device to filter contents of each site visited to determine relevancy of content to said particular subject (See page 6, column 1, paragraph 3, wherein it is inherent that selective content is kept and presented).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Conklin et al. by the teachings of Hammer et al. to include device for traversing links between sites on the computer network by said search engine and filtering device to filter contents of each site visited to determine relevancy of content to said particular subject because it is well known in the art that “traversing links” and filtering operations are inherent functionality and perhaps the main functionality of a crawler coupled to a “search engine”.

Response to Arguments

16. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Note: claims 46, 60 and 61 are missing the second filtering operation although Applicant's remarks appear to argue this feature.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. For list of cited references, see PTO-form 892.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neveen Abel-Jalil whose telephone number is 571-272-4074. The examiner can normally be reached on 8:30AM-5:30PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christian Chace can be reached on 571-272-4190. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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